

Notice of Allowability

Application No.

10/560,311

Examiner

Carol S. Tsai

Applicant(s)

SHIMASAKI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/9/2005.
2. ☒ The allowed claim(s) is/are 1-13.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>12/9/2005</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-13 are allowed.
2. The following is an examiner's statement of reasons for allowance:

U. S. Patent No. 4,061,466 to Sjöholm et al. in combination with U. S. Patent No. 4,820,490 to Morris are references closest to the claimed invention. Sjöholm et al. disclose a quantitative measurement method, comprising the steps of: bringing a test specimen containing the target substance into contact with a material having a three dimensional mesh structure which contains a reagent that reacts with the target substance. Morris disclose the concentration of a substance in a fluid sample can be accurately determined by coating the light source with a reagent that is chemically reactive with the substance and measuring light transmitted from the coating before and after the substance is applied to the coating. However, Sjöholm et al. in combination with Morris do not teach detecting, at a contact interface between the test specimen and the reagent, a substance whose quantity increases or decreases within the mesh structure by means of the reaction between the target substance and the reagent; performing quantitative measurement of the target substance in response to the results of step (b); wherein the mesh structure allows at least the target substance to pass therethrough; and including all of the other limitations in the respective independent claims.

U. S. Patent No. 4,061,466 to Sjöholm et al. in combination with U. S. Patent No. 4,820,490 to Morris and U. S. Publication 2004/0121420 to Smith are references closest to the claimed invention. Sjöholm et al. in combination with Smith disclose a quantitative measurement

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chip comprising: a reaction cell having a structure which is formed with a three dimensional mesh structure material, the structure containing a reagent that reacts with a target substance in the mesh. Morris disclose the concentration of a substance in a fluid sample can be accurately determined by coating the light source with a reagent that is chemically reactive with the substance and measuring light transmitted from the coating before and after the substance is applied to the coating. Smith discloses an injection tube for injecting the test specimen containing the target substance into the reaction cell. However, Sjöholm et al. in combination with Morris and Smith do not teach a photoemitter and a photoreceptor for measuring, at a contact interface between the test specimen and the reagent, the light absorbance of a substance whose quantity increases or decreases within the reaction cell by means of the reaction between the target substance and the reagent; wherein the mesh structure allows at least the target substance to pass therethrough; and including all of the other limitations in the respective independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takada et al. disclose a production process of a microfluidic device in which a porous

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resin layer, which is capable of optimally fixing a large amount of enzyme, antigen or other protein or catalyst on the inner surface of a minute channel of a microfluidic device without obstructing said channel, is formed at a uniform thickness on the surface of said channel.

Ito et al. disclose a detection apparatus, an input apparatus, an individual identification apparatus, and a recording medium that utilize information about users' bodies which disables the fraud of impersonating authorized users and is extremely difficult to forge and is obtained without giving the users a sense of inhibitions, without restraining their bodies during use, and independent of their mental states and health.

Milstein et al. disclose improved proteinoid carriers and methods for their preparation and use as oral delivery systems for pharmaceutical agents.

Sakata et al. disclose an air filter having an inorganic material layer in which the following adsorbent is fixed on the surface of the supporter using powder of an inorganic substance as a binder.

Koyama et al. disclose an analytical element comprising a light-transmissive and liquid-impervious support, at least one reagent layer containing at least one reagent which reacts with a component in a fluid sample and at least one development layer provided at a position on the reagent layer on the opposite side to that of the support for permitting the component in said fluid sample to permeate into the reagent layer, at least one layer of reagent layers being constituted of polymeric particulate units each having a core-shell multi-layer structure comprising a core, which is hydrophobic and substantially unswellable with a fluid sample, and a hydrophilic outer shell.

Brandstetr et al. disclose a general-purpose apparatus for thermochemical quantitative

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analysis, operable upon the principle of measuring temperature variations accompanying chemical reactions between a solid and a liquid substance as well as between two solutions.

Contact Information


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224.

The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

cswt
October 11, 2006
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CAROL S.W. TSAI
PRIMARY EXAMINER